

Amendments to the Claims

1. (Canceled)

2. (Currently amended) A method of performing polymerase chain reaction comprising:

digesting reagents for polymerase chain reaction with a AluI restriction endonuclease, wherein the reagents comprise Taq DNA polymerase, deoxynucleotide triphosphates, reaction buffer, and a pair of primers, wherein the AluI restriction endonuclease does not cleave said pair of primers and both primers of said pair of primers have no recognition sites for the AluI restriction endonuclease to form digested reagents;

inactivating said AluI restriction endonuclease but not said Taq DNA polymerase to form AluI endonuclease-inactivated digested reagents;

mixing a test sample and the AluI endonuclease-inactivated digested reagents to form a mixture;

subjecting the mixture to conditions such that any templates present in the test sample which hybridize to both primers of the pair of primers are amplified;

detecting amplification product, wherein a detected amplification product indicates the presence of template which hybridizes to both primers in the test sample.

3. (Canceled)

4. (Currently amended) The method of claim 2 wherein the step of inactivating comprises heating to a temperature which inactivates the AluI restriction endonuclease but not the Taq DNA polymerase.

5. (Original) The method of claim 2 wherein the test sample is a treated blood sample.

6. (Original) The method of claim 5 wherein the blood sample is from a patient suspected of systemic bacteremia.
7. (Previously presented) The method of claim 2 wherein the primers comprise sequences as shown in SEQ ID NO: 1 and SEQ ID NO: 2.
8. (Currently amended) The method of claim ~~3~~ 2 wherein the step of inactivating is performed at about 65° C for about 20 minutes.
9. (Original) The method of claim 2 wherein the step of detection employs an agarose gel.
10. (Original) The method of claim 9 wherein amplification product is labeled with ethidium bromide and visualized under ultraviolet light.
11. (Original) The method of claim 5 wherein the blood sample was treated to extract DNA therefrom.
12. (Original) The method of claim 2 wherein the sample is urine.
13. (Original) The method of claim 2 wherein the sample is cerebrospinal fluid.
14. (Original) The method of claim 2 wherein the primers hybridize to at least 10 eubacterial species' DNA in regions which are highly conserved.
15. (Original) The method of claim 2 wherein the primers hybridize to 16S RNA genes.
16. (Original) The method of claim 2 further comprising the step of: identifying a bacterial species as a source of the templates by sequencing the amplification product.
17. (Original) The method of claim 2 further comprising the step of: identifying a bacterial species as a source of the templates by restriction endonuclease digestion of the amplification

product and determining sizes of products of said digestion.

18. (Original) The method of claim 2 further comprising the step of: identifying a bacterial species as a source of the templates by amplification of the amplification product using primers which hybridize to a single eubacterial species 16S RNA.

19. (Original) The method of claim 2 further comprising the step of: identifying a bacterial species as a source of the templates by amplification of the templates in the test sample using primers which hybridize to a single eubacterial species 16S RNA.

20. (Original) The method of claim 2 wherein the Taq DNA polymerase is not active under the conditions used for the step of digesting.

21. (Currently amended) The method of claim 2 wherein the amplified product comprises at least one recognition site for the AluI restriction endonuclease.

22. (Currently amended) The method of claim 2 wherein the amplified product comprises at least two recognition sites for the AluI restriction endonuclease.

23. (Previously presented) A method of performing polymerase chain reaction comprising:
digesting reagents for polymerase chain reaction with AluI restriction endonuclease, wherein the reagents comprise Taq DNA polymerase, deoxynucleotide triphosphates, reaction buffer, and a pair of primers comprising sequences selected from the group consisting of (a) SEQ ID NO: 1 and 2; and (b) SEQ ID NO:3 and 4 to form digested reagents;

inactivating said AluI restriction endonuclease by heating said reagents to a temperature which inactivates AluI but does not inactivate Taq DNA polymerase to form

endonuclease-inactivated digested reagents;

mixing a test sample of DNA isolated from a patient's blood sample and the endonuclease-inactivated digested reagents to form a mixture;

subjecting the mixture to conditions such that any templates present in the test sample which hybridize to both primers are amplified;

detecting an amplification product of 416 basepairs if the selected pair of primers has the sequences of SEQ ID NO: 1 and 2, or detecting an amplification product of 811 basepairs if the selected pair of primers has the sequences of SEQ ID NO: 3 and 4, wherein a detected amplification product indicates the presence in the patient's blood of a template which hybridizes to both primers of the pair of primers, which indicates bacteremia in the patient.

24-32. (Canceled)